

REMARKS

Claims 1-21 are pending in the present application. Claims 1-5 and 10-14 are withdrawn from consideration. New claims 20 and 21 have been added, which are supported in the specification at page 21, line 18. Applicant submits that no new matter has been added by way of the present amendments.

Rejection under 35 U.S.C. §102(e)

Claims 6, 7, 8, 15, 17 and 18 stand rejected under 35 U.S.C. §102(e) as being anticipated by Maruyama (US 2005/0069648). Applicant respectfully traverses.

Applicant respectfully submits that Maruyama fails to anticipate the claimed invention as alleged by the Examiner. Specifically, Maruyama fails to teach drawing a conducting pattern on a substrate. The Examiner points to paragraphs [0098] and [0132] to illustrate drawing a pattern on a substrate. However, Maruyama merely teaches in paragraph [0098] that after the metal oxide dispersion is applied onto the substrate, the substrate with the dispersion applied thereon is subjected to heat treatment at a temperature enough to reduce the metal oxide to the metal, whereby a metal thin film is formed on the substrate. Maruyama does not describe the formation of a conductive pattern in lines 1-5 of paragraph [0098].

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (Emphasis added). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Since Maruyama fails to teach the claimed step of “*drawing a conductive pattern on a substrate by an ink comprising a dispersion of fine particles of a metal oxide or hydroxide*”, then

Maruyama fails to teach each and every element as set forth in the claims. Accordingly, Maruyama cannot be properly applied as an anticipatory reference.

Moreover, Maruyama teaches in paragraph [0132] that its disclosure makes it possible to form a metal thin film onto a substrate by a treatment at a relatively low temperature using a low cost metal oxide as the raw material. Thus, by controlling the applied thickness onto the substrate of the metal oxide dispersion, a metal thin film thickness can be controlled arbitrarily, and direct imaging formation of wiring by an inkjet application method is also possible, whereby the method allows for wiring formation at low cost and with less resources (i.e., photolithography and etching steps of metal thin film can be omitted).

On the other hand, one distinguishing feature of the present invention is that the method for producing a printed circuit board requires drawing a conductive pattern on a substrate by an ink comprising a dispersion of fine particles of a metal oxide or hydroxide; and reducing at least part of said fine particles of a metal oxide or hydroxide to a metal to form a conductive pattern. By practicing the steps of the present invention, precise conductive patterns can be easily formed by using the printed circuit board-producing ink comprising fine particles of metal oxide or hydroxide such as $\text{Cu}_2\text{-O}$ and Ag_2O , thereby providing printed circuit boards with precise conductive patterns easily, rapidly and stably (see page 23, lines 24-28 of the present application). Maruyama is silent regarding these advantages.

Therefore, Applicant submits that Maruyama does not direct those skilled in the art toward the methods of claims 6 and 15. Moreover, since the subject matter of claims 6 and 15 is novel over the disclosure of Maruyama, dependent claims 7, 8, 17 and 18 are likewise novel over the disclosure of Maruyama. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection.

Rejection under 35 U.S.C. §103

Claims 7 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Maruyama, as applied to claims 6 and 15 above. Applicant respectfully traverses.

Applicant respectfully submits that Maruyama fails to teach the limitations of the claimed invention, as discussed in the context of the discussion of 35 U.S.C. §102(e) above. Therefore, the present rejection, which is based on the above 35 U.S.C. 102(e) rejection, is improper and fails to establish a *prima facie* case of obviousness. Withdrawal of the outstanding rejection is respectfully requested.

In view of the foregoing, Applicant believes the pending application is in condition for allowance. A Notice of Allowance is earnestly solicited.

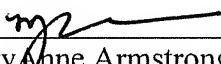
Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Monique T. Cole, Reg. No. 60,154 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 
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